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PRACTICAL SUGGESTIONS
TO
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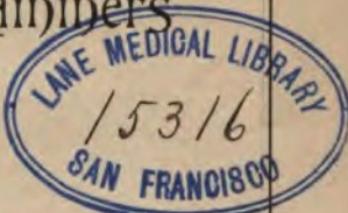
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PRACTICAL
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TO THE
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OF THE
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1029. Oct., '97.

SPECIAL NOTICE.

If, after any examination, the Medical Examiner decides to report adversely upon the case, he is requested, before he sends his examination to the Company or Manager, or delivers it to the Agent, to write the Company confidentially, giving the Name, Date of Birth, Occupation and Residence of the Applicant, together with the reason for his unfavorable opinion; and blank forms are furnished by the Company for this purpose. Such confidential letter, to be of value, must be mailed by the Examiner so that it will reach the Home Office before (certainly not later than) the regular Report itself.

Again, if for any reason the Medical Examiner prefers to do so, he is authorized and requested to send his Reports direct to the Home Office. It is not necessary that he should report or disclose to any one the result of his examination.

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TO THE
MEDICAL EXAMINERS
OF THE
NEW-YORK LIFE
INSURANCE COMPANY.

THE following remarks and instructions are not put forth as completely covering the work, and are therefore not to be understood as fully prescribing the duties of the Medical Examiner. They are intended rather to point out the manner in which examinations may be readily and effectively made, and to guide those among our Examiners who may not yet be quite familiar with the somewhat special technique required in making examinations for Life Insurance. They should be regarded, in a measure, as a confidential communication.

In return, our Examiners are requested to communicate directly and confidentially with the Medical Department at the Home Office of the Company at any time and in all cases when, in their opinion, it is desirable or necessary.

Any information from them in regard to the Climate, Epidemics, Hygiene, or diseases peculiar to the localities in which they reside, will be welcome and highly appreciated.

LIFE INSURANCE.—THE APPLICANT.

The business of Life Insurance is based on the fact that, while the longevity of a single individual is proverbially uncertain, there is a fixed law, determining, within narrow limits, the average age at death of large numbers of individuals of the same age; and that, under this law, it may be expected that any man in sound health, of temperate habits, with a good family history, and a healthful occupation, will live as long as the average of those of the same age, *i. e.*, will live out his "Expectation of Life."

Involving, as it does, the purely medical questions of the past and present health, the family history, the habits, hygienic surroundings and occupation of the individual, the business of Life Insurance requires for its successful prosecution the assistance of those whose lives are spent in the study of such questions—Medical Practitioners; and because of the enormous sums of money involved, and the dangers of fraud, it is necessary that the Medical Examiners of a Life Insurance company should possess, besides a good medical knowledge, the most upright character and sound judgment.

The chief essential to the success of a Life Insurance company is the maintenance of a high standard in the selection of its risks. These should always be fully up to the average in health, of temperate habits, of good personal and family history, and of healthful occupation; and they should approximate closely to the average physical conformation of healthy men. Of the health, habits, history and occupation of an Applicant for insurance, physicians are able to fully inform themselves; but the questions of average physical conformation or "build," and the average probable longevity of an indi-

vidual, so rarely present themselves for their consideration that the table of height and weight on page 22 will be found convenient for reference.

MEDICAL EXAMINERS.

Medical Examiners are selected solely for their moral and professional standing in the communities in which they reside. They hold their appointments direct from the Company, and retain their positions as long as their services prove satisfactory to it.

They are the trusted advisers of the Company, and their relations with the Medical Department are personal and confidential. It is their duty to examine Applicants for insurance presented to them by the Agents of the Company, to furnish, on blanks provided for that purpose, full and complete reports of the personal and family histories, and of the physical condition of the Applicants, and to give their opinion as to the value of the risks. For such examinations they receive the fixed fee of the Company, and this fee is paid whether the Applicant is approved or disap-

proved by the Examiner. The fees are paid by the Company and not by the Applicants or Agents; and Examiners are not dependent, for their appointment, dismissal, or fees, upon either Applicants or Agents.

It is to the interest of all concerned that the relations of the Examiner with both Applicants and Agents should be cordial and friendly. To the Applicants his position should be of the same delicate and confidential nature as that shown to patients who entrust themselves to his professional care; and, while it is often the duty of the Medical Examiner to oppose his judgment to the wishes of Agents and decline to recommend some of the Applicants, yet the Medical Examiner, by the exercise of tact and judgment, and especially by firmness in his convictions, should be able to avoid serious friction, and thereby secure that harmony so essential to a pleasant intercourse and to satisfactory business results.

He should always bear in mind that the Agent's livelihood depends on his ability to obtain Applicants, and he naturally depends on the Medical Examiners of the Company which he represents for reasonable co-operation,

that he may secure the fruit of his labor. The more Applicants the more Fees, and all consistent mutual aid is but fair turn about.

Thus to the Agents belongs the task of securing Applicants for Insurance, and to the Medical Examiners that of selecting from such Applicants only those risks which may be safely accepted by the Company.

In ordinary medical practice the patient endeavors to describe fully and clearly every detail of the disease of which he complains, so as to give the physician a complete understanding of his condition. He conceals nothing from him, and the physician has only to consider the evidence before him and, rejecting that which is worthless, to act upon that which is reliable and of value.

In examinations for Life Insurance, on the contrary, the Applicant wishes to appear well and strong. He declares that he is in sound health, and in all his statements as to his personal and family history he is inclined to emphasize only those features which appear to him favorable to his case, and, if dishonest, the Applicant tries to mislead the Examiner, and so distorts the facts that it becomes very

difficult to draw a correct conclusion from them. In short, a *Patient* assists his physician; an *Applicant for Insurance* frequently antagonizes the Medical Examiner.

Therefore, besides the skill of the ordinary practitioner, the Examiner for Life Insurance must bring to his task complete independence of character, absolute integrity, and the ability to detect attempts at fraud on the part of Applicants or others interested. He must constantly bear in mind that he is the Guardian of the interests of the Company, and that upon his vigilance, judgment and integrity depends, largely, its success or failure.

MEDICAL EXAMINATIONS.

The Medical Examination of an Applicant for Life Insurance has for its object to secure such information in regard to the family history and the past and present health of the Applicant as will enable the Medical Board at the Home Office, assisted by the opinion of the Medical Examiner, to judge whether the Company may safely grant the Insurance applied for.

This object is best secured by following a general routine, to be varied as the experience of the Examiner or the special circumstances in any individual case may indicate. We therefore call your attention to the subjoined

RULES AND INSTRUCTIONS FOR THE GUIDANCE OF MEDICAL EXAMINERS.

Familiarization. First of all, you are requested to thoroughly familiarize yourself with the queries on the two sides of the examination sheet under the captions, "ANSWERS MADE TO THE MEDICAL EXAMINER," and "MEDICAL EXAMINER'S REPORT."

By doing this, you will accomplish two very desirable ends: first, to secure as thorough an examination and complete information as possible; and second, you will avoid much correspondence and delay.

Doubtful Risks. Instances will occasionally occur in which you may be in doubt whether you ought to examine an Applicant. You should not examine any person whose application for insurance has ever been suspended or declined by this Company, or within the year

previous by any other company, without first receiving permission from the Home Office for such examination; nor should you examine a person whom you positively know to be uninsurable. When, in any case, you decline to make an examination, you should send a confidential notice of your action to the Home Office on one of the blank forms furnished. (See that you have always several of these forms on hand.)

Pensions. Whenever you examine a person who is a pensioner, your examination should be made with special care, and the grounds on which the pension has been obtained should be clearly stated.

Promptness in keeping appointments and in making examinations must be strictly observed, as any delay may cause a loss to the Company, to the Agent or the Applicant, for which the Medical Examiner is held responsible. Competition in this business is so acute, that, while we wish the examinations to be made at the Examiner's office whenever possible, we cannot *insist* upon having Applicants call at your office for examination, and are therefore obliged to ask you to make ex-

aminations at any place within reasonable distance, and at any reasonable hour.

Privacy. We must also ask that examinations be made strictly in private. The agent or any third person not being permitted to be present. In very exceptional cases, husband or wife, a parent, a brother or sister, a guardian or some near relative may be admitted.

Self-written. Both the Answers and your Report must be made out entirely in your own handwriting; and where corrections are made, you should indicate that they are made by yourself, by adding your initials; but you are not to fill in any part of the formal application.

Relationship and Pecuniary Interest. If you are related to either Applicant or Agent, or if you have a pecuniary interest in the proposed insurance, you must refuse to make the examination, and should refer the Agent to some neighboring Examiner.

ANSWERS MADE TO THE MEDICAL EXAMINER.

When an Applicant presents himself for examination or is brought by an Agent, the Examiner having retired with the Applicant to his private office or room provided for the pur-

pose, begins the examination by reviewing in detail the statements made in the application as to the full Name, the Date of Birth, Occupation, etc., of the Applicant, and satisfies himself as to the identity of the Applicant, and that the application is correctly filled out and properly signed.

The rule of the Company requires that applications be filled up and placed in the Examiner's hands before examination, and the Examiner should consent to exceptions only in those cases where some good reason is apparent.

Occupation. This question should develop fully whether the applicant is engaged, or is likely to engage, in an occupation involving any unusual hazard, such as employment on or about railroad trains; use of explosives; occupations involving cramped or unhealthy positions; confinement to close, ill-ventilated rooms; exposure to great or sudden variations of temperature, etc.

Under the head of Occupation also, a further question is intended to bring out whether the Applicant is, or has been, or is likely to be, engaged in the manufacture, sale or personal handling of alcoholic liquors.

Residence. The object of this query in bringing out the liability to Epidemics, to Malarial influences or any unhealthy environment, is evident.

Habits. The questions relating to the use of alcoholic drinks should be asked with a view to determine whether at any time present or past, their use is or has been, excessive or harmful.

The Examiner should also be particular to ask, in suspicious cases, if the Applicant has ever resorted to the "*Keeley*" or so-called "*Gold Cure*" or other special treatment. If he has, give dates, and whether any alcoholics have been used since.

Inquiry must also be made as to the use of drugs (Opium, Morphine, Cocaine, etc.). This question of Habits is of so great importance, that the Company is obliged to take the position that an Examiner fails to do his full duty who does not place it in possession of all the unfavorable information which he has, or which may be reasonably accessible to him.

If personally acquainted with the Applicant, the Examiner should be able to give all the facts; if not acquainted, and there is suspicion

in his mind, the Examiner should not rest on the Applicant's statements, but should make inquiry among the friends and neighbors of the Applicant and secure further information, which may be sent to the Home Office under confidential cover, if necessary.

Blood Spitting. No medical question in the entire range of our business requires the exercise on the part of the Examiner of greater care in securing a detailed answer, and no question is more frequently answered imperfectly. It is only after a careful study of the fullest details that the Company is able to distinguish with any degree of accuracy, between those Hæmoptyses which should exclude from the benefits of insurance, and those which may be safely disregarded. The Examiner should therefore carefully distinguish between a true Hæmoptysis and the blood-stained sputum of Pneumonia, or of severe Bronchitis. The cause, the number of attacks and the extent of each Hemorrhage should be carefully inquired into and stated.

Female Risks. Women have usually been considered less desirable risks than men, probably because they have, in the majority of cases,

been less carefully examined, owing to the delicacy and difficulties which are usually met in such examinations; the Examiner should use the same care in examining women that he does in examining men. **Pregnant women**, under the present rules of the Company, are not insurable.

Whenever a female Applicant is to be examined, it is advisable to notify the Applicant in advance to prepare herself for the examination; she should wear a loose, non-rustling waist, and no corsets. It would be well also if she could be informed that a specimen of urine will be required, and let her provide herself with a thoroughly clean, three-ounce bottle filled with *freshly-voided* urine which may be given to the Examiner. This precaution will be found wise, because in most places where female examinations are conducted facilities for obtaining freshly-voided specimens are not accessible.

The formal questions in the Report of female examination should be carefully answered as proposed, and any other information which the Examiner may deem pertinent should be given.

Previous Applications and Examinations.

The Company wishes to know whether the Applicant has at any previous time been examined for insurance, and failed to obtain a policy as applied for. If so, the details of when, where, and for what Company or Society, should be fully stated.

Personal Record. The Medical Examiner should secure a complete statement of each of the diseases from which the Applicant has suffered; not only with a view to determine what effect such disease has already produced upon the constitution of the Applicant, but also to discover any tendency to disease in the future.

Write clearly the *name of each disease, the number of attacks, the date and duration of each, its severity and results, if any.*

All answers should be complete, but as concise as possible. The aim should be to give the facts, but avoid trivial details. Certain diseases very important from a Life Insurance standpoint often fail for some reason to receive satisfactory description. They are as follows:

Asthma. State cause (if possible), when first attacked, the frequency and severity of the seizures, when last attacked. The Ex-

aminer should distinguish between true Asthma and Hay Fever. The frequency with which Asthma occurs as a symptom of Emphysema should also be kept in mind.

Spitting of Blood. (This has already been referred to.)

Dyspepsia seems to be often misunderstood and imperfectly described. We *do not wish* to know if an Applicant has suffered from an indigestion due to overeating at some time or other, but we *do wish* to know if he has suffered from *any marked functional disorder*, or from *organic disease* of the digestive organs.

Rheumatism and Gout. Be particular to give the number of attacks and the date of each, indicate whether each attack was severe or not, or accompanied by any serious complication. It is necessary also to distinguish between Articular and the so-called Muscular Rheumatism.

Syphilis. Give the date and character of the primary lesion; the character and duration of the secondary or tertiary lesions; the treatment employed, and when it was finally discontinued. Never refer to Chancroid as Syphilis. Have in mind that one is simply a *local* and the other a *constitutional* disease.

Medical Treatment. Ascertain from the Applicant whether he has found it necessary to consult a physician for any ailment, and if so, give the name and address of physician, the nature of the ailment, and the date of treatment.

Family Record. These questions are to determine what hereditary influences, if any, may be expected to interfere with the longevity of the Applicant. Do not rest content with, nor write down any obscure answers. If the Applicant describes the health of a living relative as "fair," or "poor," ascertain in *what respects* they are not in good health, and frame the answer accordingly. Where the cause of death is said by the Applicant to have been due to "change of life," or "childbirth," or "exposure," or where any such indefinite term is used, let the Examiner *satisfy himself as to the facts*, and record them as concisely and correctly as possible in order to eliminate the possibility of the impairment being *Tubercular*.

In all cases where the final illness of any member of the family has been a protracted one, it is important to determine whether death was due to a disease which may be considered in any sense hereditary.

Declaration and Signature. This completes the "Answers Made to the Medical Examiner," and is immediately followed by the Declaration and Signature of the Applicant, which is to be witnessed by the Medical Examiner.

The Signature of the applicant is an important point, and should be carefully observed. Let the Examiner notice the characteristics of the signature as well as the Applicant's manner in making it. If it is tremulous or shaky, or in any way suggestive of a general tremor or a possible incipient paralysis, the Examiner should search carefully for the explanation, and record it in his special remarks. He should, of course, be careful to distinguish between the irregular, jerky signature of one who is unaccustomed to the pen, and the uniformly tremulous signature of one who has some central or grave nervous lesion.

Carefully follow any notes of instruction which may appear on the examination forms.

MEDICAL EXAMINER'S REPORT.

Pulse. This question has been placed first in the "Report" in order that the rate and

character of the pulse may be observed while the Applicant is still seated, and before the medical examination is begun, and may be studied before it has been disturbed by the incidents of the physical examination.

Measurements. The height, and the dimensions of the chest and abdomen should be carefully *measured*, and *not estimated*. The weight should be taken without coat or vest, and where for any reason it is necessary to estimate, the word "estimated" should be inserted along with the figures; otherwise the Company assumes the weight to be exact.

Gain or Loss of Weight. If the Applicant has recently gained or lost in weight, the particulars should be carefully given.

If unusual stature is a marked characteristic of the Applicant's family, it should also be noted.

In order to show the proper relation of height to weight, the following table is presented; and where an Applicant is markedly over or under weight according to the table (say 20% in either direction), the heights and weights of other members of the family should be briefly noted in the space allotted for ad-

ditional remarks. This should be carefully done, as its bearing on the value of certain risks is important:

TABLES OF HEIGHT AND WEIGHT.

Average Normal Build.—Age 38 to 40.

A MAN

5 feet 0 inches in height should weigh 123 pounds.

5 "	1 "	"	"	"	127	"
5 "	2 "	"	"	"	131	"
5 "	3 "	"	"	"	135	"
5 "	4 "	"	"	"	139	"
5 "	5 "	"	"	"	143	"
5 "	6 "	"	"	"	148	"
5 "	7 "	"	"	"	152	"
5 "	8 "	"	"	"	157	"
5 "	9 "	"	"	"	161	"
5 "	10 "	"	"	"	166	"
5 "	11 "	"	"	"	171	"
6 "	0 "	"	"	"	176	"
6 "	1 "	"	"	"	182	"
6 "	2 "	"	"	"	187	"
6 "	3 "	"	"	"	192	"

A WOMAN

4	feet	9	inches in height should weigh	108	pounds.
4	"	10	"	111	"
4	"	11	"	115	"
5	"	0	"	118	"
5	"	1	"	121	"
5	"	2	"	125	"
5	"	3	"	129	"
5	"	4	"	133	"
5	"	5	"	137	"
5	"	6	"	141	"
5	"	7	"	145	"
5	"	8	"	150	"
5	"	9	"	154	"
5	"	10	"	159	"

NOTE.—These tables are different from any heretofore employed, but are quite correct as to American experience.

They are the result of a study of the work recently reported to the National Association of Life Insurance Medical Directors by its Committee, who have had under consideration the experience in heights and weights of a large number of insured in American companies. These tables give the ascertained average weights of males and females respectively at age 38 to 40, this appearing to be the age at which the bulk of insurance has been transacted in American companies.

The variations for each quinquennial period from 20 to 60 years of age have been very carefully figured out, but the complete table would be too cumbersome for practical use. At younger ages than those given in the table the weights rule lighter, and at older ages somewhat heavier; but for practical purposes a variation in either direction of 18 to 20 per cent. from the table weights may, other features being favorable, be regarded as entirely compatible with an average expectancy of life.

We append also a table showing

THE EXPECTATION OF LIFE.

A PERSON

20 years old may be expected to live 42 years or until 62 years old.

25	"	"	"	"	39	"	"	64	"
30	"	"	"	"	35	"	"	65	"
35	"	"	"	"	32	"	"	67	"
40	"	"	"	"	28	"	"	68	"
45	"	"	"	"	24	"	"	69	"
50	"	"	"	"	21	"	"	71	"
55	"	"	"	"	17	"	"	72	"
60	"	"	"	"	14	"	"	74	"

Personal Acquaintance. The Medical Examiner should state, in its proper place, whether he is personally acquainted with the Applicant and how long. Note the apparent age of the Applicant, and if he appears much older than the age given by him, attention should be called to it and the apparent age given.

Characteristics. The distinguishing characteristics, such as Complexion, Color of Hair, Color of Eyes, etc., should be correctly stated; and in order to do this, the Examiner should observe the Applicant in a good light, and all

examinations should be made in well-lighted rooms if possible. Observe the hue of the skin, etc., whether healthy or unhealthy.

Deformity or Maiming. Describe in detail any Deformity or Maiming, especially where locomotion is interfered with; where a crutch, cane or artificial limb is used, the fact should be stated, as well as how far the appliance overcomes the defect. A risk otherwise good is often considerably impaired by an increased liability to accident.

Race. Be particular to answer correctly whether the Applicant is a Caucasian (white race), or whether he belongs to some other race, or is of mixed blood. If mixed, state what races.

Identification. Any striking or distinguishing mark by which the Applicant may be readily identified should be noted. This is an important point, and is often overlooked. Some physical peculiarity or scar or mark may be observed, or something in the shape of the teeth, nose deviating to one side, etc., may be noted. Be also careful to state whether the Applicant bears marks of successful vaccination, or small-pox.

Evidence of Disease. The questions should be so directed as to prompt the Applicant's memory, and elicit the history of any previous ailment; and the physical examination should be thorough so as to detect any symptoms of *past* or *present* disease, not only of the organs specifically mentioned, but of any part of the body, internal or external.

Brain or Nervous System. Be on the alert to detect any evidence indicative of past or present central lesion or grave disturbance. Any striking mental peculiarity or mannerism should be noted.

Heart. Note whether the sounds and rhythm are normal; if intermittent or irregular, you should, if possible, explain the cause.

Whenever a murmur is present, state, 1st, the area of its distribution; 2d, the point of its greatest intensity; 3d, the relation of the murmur in point of time to the heart sounds; 4th, the location of the apex beat, and whether any hypertrophy or dilatation be present; 5th, the action of the heart under rigorous exercise; 6th, whether the murmur is deemed *organic* or *functional*.

Lungs. It is needless to remark that they

should be examined very carefully, and especially when the family or personal history or physical conformation suggest a tendency to tubercular diseases.

Stomach and Abdominal Organs. Search should be made for any tumor or abnormality, for history of colics, or any suspicious symptoms in the neighborhood of the Appendix. Examine carefully for Hernia, ascertain whether reducible or irreducible, and whether a suitable truss is worn.

Rheumatism and Gout. These have already been referred to in another place.

Skin, Middle Ear, Eyes. Any serious or suspicious skin affection should be noted and described. Blindness and Deafness impair a risk, and the Examiner should state the cause and extent of either, whether total or partial. In case of Middle Ear disease, give details and frequency of the attacks, their severity, the character of discharge and when last seen. *General Questioning* should elicit the history of any disease or ailment not otherwise mentioned.

Genito Urinary Organs. *Be sure* that the urine examined is that of the Applicant, and

it should, if possible, be voided in the presence of the Examiner. *Under no circumstances should a Report be based upon a specimen the origin of which is in doubt.*

If the urine contains either Albumen or Sugar, give, if possible, a brief explanation of its probable cause; in the case of sugar, inquire carefully whether its presence has been previously detected, and whether any of the general symptoms of Diabetes are, or have ever been, present. Where the presence of sugar in an otherwise apparently perfectly healthy person is believed to be due to some accidental or passing cause, a second specimen should be examined within 48 hours; a better opinion of the probabilities can then be given.

Microscopic Examination (unless called for by Home Office) is not required and no charge for it will be allowed; but if an Examiner, for his own satisfaction, makes such examination, his Report is always welcome.

Stricture. If history or symptoms point to Stricture, investigation should be made, and the actual conditions as to location, probable cause, duration and calibre given.

It should also be stated whether there has been treatment, its nature and date.

Suspicions. If the appearance of the Applicant, or anything in the course of the examination, leads to suspicion of former or present intemperate use of alcohol or drugs, be sure to put the Company on guard.

Review. It is often a matter of surprise to us that some of our very best Examiners submit to the Company Reports in which omissions and obscurities are so glaring as to make the entire Report practically valueless, causing oftentimes much correspondence and delay.

We therefore urge our Medical Examiners to make it a uniform practice to *Review all their work*, and not make *final* answers until they have done so. If the questions already asked do not satisfy them that Applicants have given full and true information in all respects, they should continue questioning until satisfied they have obtained all necessary information which the Applicants are able to give.

Final opinion and advice must be based, not only upon knowledge of the actual present physical condition of the Applicant as determined by the examination, but also upon his

Habits, Surroundings, and Personal and Family History.

The Company should have the benefit of the Examiner's *entire knowledge* affecting the risk ; but where the physical condition of the Applicant is thoroughly satisfactory, and the value of the life for insurance is, in the Examiner's opinion, lessened by other factors, he *should recommend the risk, calling attention to the points to which he thinks exception may properly be taken.* (See also farther on under head "Recommendations.")

Place of Examination (in the Certificate at the bottom of the " Medical Examiner's Report"). The place should be described as follows: "at my office"; "at his residence"; "at his office"; "at his farm 3 miles south of"; "at his country seat 4 miles west of"; and so on.

Finally, the Medical Examiner should fill in the blanks in his Certificate of Examination and sign the examination. This completes the " Medical Examiner's Report."

FIELD OF OPERATION.

The Medical Examiner is expected to act only in the community where he resides, and

should not make examinations in the territory of another Examiner except when the latter is for any reason not available. In such event, he should add to his Report a statement of the circumstances which seemed to him to warrant his irregular action.

Appointment. It has never been the custom of this Company to send a formal commission of appointment to its Examiners, and it reserves to itself the right to make such changes from time to time in its staff of Examiners as seems for the best interests of the Company. We make this statement because we are often asked for letters of commission by Examiners who do not know the custom of the Company on this subject.

FEES FOR MEDICAL EXAMINATIONS.

Immediately upon their appointment, all Medical Examiners are notified by the Company of the fees which are allowed, and these fees (whether the Applicant is accepted or rejected by the Examiner) will be paid by the Company for each completed examination where an Applicant applies for *new* insurance

or for an *increase* of insurance *after* one transaction *has been closed* and the *policy delivered*.

A double fee is also allowed whenever a microscopic examination of the urine is requested by the Company.

Only those examinations are regarded as *complete* in which the Medical Examiner has secured for the Company all the information necessary to enable the Company to decide whether the risk is, or is not, acceptable. Completeness must also include the ordinary Certificate of Health for the *delivery of the policy* at any time within six months of the date of the original examination. (The number of cases requiring such Certificate will be very small.)

Fees for medical examinations for the reinstatement of lapsed policies or for paid-up values must be paid by the Applicant, *and are not chargeable to the Company*.

The Company will allow only the regular schedule fee for each examination, and will not be responsible for any charge for mileage or other extra service.

Bills. Medical Examiners are requested to send their bills monthly direct to the Home Office. Blank forms are provided by the Com-

pany for this purpose, and will be supplied on request.

Necessity for Complete Papers at Home Office. To enable the Company to properly check and audit Examiners' accounts, the completed application and medical examination papers are required at the Home Office.

Medical Examiners should see that, as far as it depends upon themselves, no application or medical examination papers are suppressed or destroyed; but that, in every instance in which an examination has been made, all such papers are forwarded to the Home Office.

RECOMMENDATIONS.

Sometimes the Examiner hesitates to recommend a risk because of a bad family history or of objectionable features in the past history of the Applicant, notwithstanding the fact that he finds the Applicant personally in excellent health at the time of the examination. According to the experience of the Company, such risks may frequently be safely assumed on some form of policy. The Examiner must remember that the final acceptance or rejection belongs to the Home Office, and that his recommendation

should be such as to give the Company an opportunity to exercise its judgment on the case.

If, therefore, he finds an Applicant on examination, to be in good health and promising a good expectancy, he should recommend such Applicant, calling attention, however, to what he deems the weakness in the case. He should say, for instance, in reply to the question whether he advises a policy be issued, "Yes, subject to family history," or "subject to personal history of Rheumatism," or "Colic," or "Blood-spitting," or "Physical Injury," and so on.

Applicants ill with any acute or serious chronic disease, should not be recommended; or, if the chronic disease is, in his (the Examiner's) opinion, entirely compatible with a good expectancy of life, he should recommend guardedly, subject to the Company's judgment as to form of policy, and he should be sure to *give all the facts*.

Final Decision. Before making final decision it is well for the Examiner to ask himself whether he would, as a private individual, take precisely such risk upon his own account and insure the life of the Applicant; and whether

he would advise the Company to place *hundreds of similar risks* upon its books?

Supplementary Report. Whenever the Examiner thinks it necessary or desirable (on account of his own personal or business relations with the Applicant or Agent) to omit a full expression (in the examination papers) of his opinion of the risk, he may forward all papers direct to the Home Office; or, allowing the papers to go through the Agent's or Manager's hands, may send to the Company a Supplementary Report mailed to the Home Office. Such Report, however, to be of value, must reach the Home Office before, certainly not later than, the application itself.*

EXAMINATION OF URINE.

For the convenience of the Medical Examiners of the Company, we add the following in regard to the examination of urine:

As quickly as possible after it is passed, the specimen of urine should be examined with respect to each of the following points :

- | | |
|--------------------------|----------------------|
| 1. Quantity in 24 hours. | 4. Reaction. |
| 2. Color. | 5. Transparency. |
| 3. Specific Gravity. | 6. Albumen or Sugar. |

* NOTE.—See also "Special Notice" on 2d page.

1. The Quantity of urine passed by an adult in good **HEALTH** is about 45 to 50 ounces in 24 hours; but it is subject to variations within considerable limits, depending upon such conditions as the temperature and humidity of the atmosphere, the activity of the skin, the amount of the expiratory exhalations, and the amount of fluids or of liquid foods ingested.

In **DISEASE** it varies from the enormous quantities passed in diabetes, in hysterical polyuria and in the amyloid and the old granular kidney, to the scanty flow of the febrile state and of some forms of disease of the kidneys.

2. The Color is usually a pale yellow or amber, though it varies with the quantity of urine voided. With a copious flow the color is very pale; with a scanty flow it may be very dark.

In **DISEASE** it varies from the dark, smoky-brown of acute Bright's disease, through the high-colored urine of the febrile state, and the pale straw color of diabetic urine, to the almost colorless urine of the hysterical state, and of some cases of contracted kidney.

3. The Specific Gravity of urine may be

stated at 1,020, under ordinary circumstances, although it may vary in health between 1,010 and 1,025, dependent upon the same causes as those which influence the variation in quantity and in color. Since the amount of solids excreted by the kidneys is fairly constant, this variation in specific gravity is approximately in inverse ratio to the amount of urine voided.

The Specific Gravity is best obtained by means of the URINOMETER. This instrument is usually graduated between 1,000 (the specific gravity of distilled water) and 1,060, and, when used, care should be taken that it is perfectly clean and that it does not cling to the side of the vessel in which the test is made.

In DISEASE this range is increased. In diabetes it may be 1,040, 1,050 or higher. In the earlier days of acute Bright's disease, and in the febrile state, it is high, and from that it ranges to that of the cirrhotic and the amyloid kidney, of diabetes insipidus or of the hysterical state, where the specific gravity may be 1,005 or less. Since, however, urine with specific gravity 1,010 has been found to contain sugar, and since the normal specific gravity has often been noticed in old cases of

Bright's disease and in severe diabetes, the specific gravity cannot be relied on as an accurate guide to disease. But an average daily specific gravity of 1,025 or over is always suggestive of the presence of sugar, and of 1,015 or under, of chronic Bright's disease.

4. **The Reaction** of normal urine is usually acid—due, probably, to acid phosphate of soda—but it may be neutral or alkaline.

The reaction is determined by the use of litmus papers. The red becomes blue in the presence of an alkaline urine, and the blue paper becomes red if the urine is acid. When the reaction is not well marked, both the red and blue papers should be used. The acidity of urine is increased by an albuminous diet, and vegetable foods decrease it or render the urine alkaline.

In DISEASE the acidity is decreased in Anæmia and in some nervous affections, and is increased in diabetes and fevers.

5. **Transparency.** The urine is naturally transparent, but, within the limits of HEALTH, it may be more or less opaque, on account of the presence of

- | | |
|-----------------------|--------------|
| A. Earthy Phosphates, | C. Mucus, |
| B. Mixed Urates, | D. Bacteria. |

A. The EARTHY PHOSPHATES may cause normal urine, at the moment it is voided, to be opaque. Shortly afterwards they subside and form a bulky, flocculent sediment, with clear urine above. They may be recognized by the fact that the application of heat will increase the opacity, while a few drops of Nitric or Acetic Acid will cause it to disappear.

B. The MIXED URATES often render a cold urine turbid. They subside quite rapidly and form a white or pinkish deposit at the bottom and on the sides of the containing vessel, much more dense in character than that of the phosphates. A gentle heat causes this opacity to disappear.

C. MUCUS from the genito-urinary tract may occur in sufficient quantity, within the limits of health, to cause some opacity in the urine. It forms a light, flocculent sediment, much like that produced by the phosphates, but which may be distinguished from the latter by the fact that alkalies, heat and strong acids have no effect upon it, while Acetic Acid increases the opacity by coagulating the mucin.

D. BACTERIA. When a specimen of urine is allowed to stand for some time, especially in

hot weather, it becomes opaque on account of beginning decomposition and the development of Bacteria. This change is important because it interferes with the delicacy of the tests for Albumen ; and it is on this account that a specimen of urine should be examined while fresh.

When, however, it becomes necessary to examine for Albumen a specimen of turbid urine, which is not rendered transparent by filtration, it should be treated by the method suggested by Hofman & Ultzman, which is as follows : Add to a portion of the urine, in a clean test-tube, about one-quarter its volume of Liquor Potassae, boil the mixture and filter. Should this filtrate be not quite clear, add one or two drops of Magnesian Fluid,* warm again and filter. This filtrate always appears clear and transparent. The presence of Albumen may then be detected by the Nitric Acid test.

In DISEASE, the urine may be opaque on account of the presence of—

a. Pys. This forms a deposit which often

* The formula of the Magnesian Fluid is as follows: Magnesium Sulphate and Ammonium Chloride, of each one drachm; Liquor Ammoniae, one drachm; Distilled Water, one ounce. Mix.

resembles that of the urates. It is distinguished from it by the fact that heat increases the opacity of purulent urine, and from phosphatic deposit by the fact that it is not cleared up by the addition of a few drops of acid.

b. DECOMPOSITION, as in old cases of cystitis, in which the urine contains bacteria, pus, mucus, epithelium and, perhaps, shreds of disorganized tissue.

c. FAT, as in chylous urine. Fat is recognized by the well-known power of ether to dissolve it.

6A. **Albumen.** The presence of Albumen in the urine is always suggestive of such grave pathological conditions that its recognition becomes one of the most important features in the examination of urine. Many tests have been brought forward for this purpose, and have had their earnest advocates, but those which have become most generally recognized for simplicity and effectiveness are the Nitric Acid test and the heat test.

The Nitric Acid Test. Into a clean test-tube about half an inch of pure, colorless Nitric Acid is poured. The test-tube being then held at a considerable angle, a quantity of clear

urine is allowed to flow from a pipette slowly down the inclined side of the tube, until an inch of urine overlies the acid. This must be carefully done, so that there shall be no mixture of the acid and the urine. The presence of Albumen is indicated by a sharp, white band or zone of coagulated Albumen in the urine AT the line of contact of the acid with the urine. In order to recognize this band, where the amount of Albumen is small, the tube should be held in a good light against a dark background. Sometimes this zone of coagulated Albumen develops very slowly, and it is, therefore, always well to look at the specimen again 15 minutes after the test is made, having placed it carefully aside for that purpose.

ERRORS. A specimen of urine which contains a large amount of Urates may show a whitish zone above the line of contact. This is caused by the formation of Acid Urates, and is distinguished by the fact that the zone is not so sharply defined as that formed by Albumen, but fades gradually into the clear urine ; also, because it disappears on the application of a gentle heat.

The presence of resin, not unusual after the use of such drugs as Balsam of Copaiba, Turpentine, etc., produces a whitish zone similar to that produced by Albumen. The addition of a few drops of Alcohol will redissolve the resin.

The Heat Test for Albumen. A clean test-tube is filled about two-thirds full of urine. To the upper part of this urine, heat is applied by means of a spirit-lamp. If, when the urine has boiled, any diminution of transparency is noticed, it is due to Albumen, Mucin or the Earthy Phosphates. Then add a few drops of Acetic Acid and boil for a few moments. If the cloud is due to Phosphates, it will disappear; if caused by Albumen or Mucin, it will persist. Next add carefully to the top layer of the urine, one drop of Nitric Acid. If the cloud still persists, it is due to Albumen; if it disappears, it is caused by Mucin.

N. B.—The urine must be acid in reaction before boiling. If not, add one or two drops of Acetic Acid.

ERROR. If the urine is slightly turbid from decomposition and the presence of Bacteria, any delicate change in its opacity cannot be seen, and it must be filtered before applying

the heat. If, after filtration, it still remains turbid, it should be treated according to the suggestions already made under 5D, BACTERIA. If the specimen is alkaline, Acetic Acid should be cautiously used, and if strongly acid, Liquor Potassae may be added, so as to render the urine only slightly acid.

If ALBUMEN is not found in a specimen of urine subjected to both of these tests, it may be safely affirmed that it is not present.

6B. **Sugar.** Although many excellent authorities maintain that the presence of a small quantity of sugar in the urine may be entirely physiological, yet it is so often the first evidence of diabetes that its recognition is of the utmost importance in examinations for Life Insurance.

Of the various tests which have been devised for that purpose, the Copper test—as in the form of Fehling's Solution*—and the Bismuth test, deserve special mention. The

* Fehling's Solution is made after the following formula: 34.64 grams of c. p. Sulphate of Copper are dissolved in 200 grams of distilled water; 173 grams c. p. Neutral Tartrate of Soda are dissolved in 500 grams of Sodic Hydrate of a sp. gr. 1.12, and to this alkaline solution the copper solution is slowly added. The mixture is then diluted to one liter. The solution is made and sold by all the large drug houses. Perhaps the best preparation is that put up by Dr. E.

composition of Fehling's Solution is based upon the fact, not only that sugar has the property of reducing the Oxide of Copper to a lower state of oxidation, but also that a definite quantity of the former will react upon a known quantity of the latter (1 c. c. of Fehling's Solution is reduced by .005 grams of sugar), and it is equally useful for qualitative and quantitative analysis.

It is an alkaline fluid, of transparent, deep blue color, somewhat easily decomposed by exposure to the air and to light and warmth, therefore requiring, for its preservation, to be kept in small, closely-stoppered bottles, in a cool, dark place.

The Test. A small quantity of the solution is poured into a clean test-tube, diluted with two or three times its volume of pure water, and boiled for a few seconds over a spirit-lamp. If the mixture becomes turbid, or a

R. Squibb, of Brooklyn, N. Y., and the Medical Examiners of the Company are requested, whenever possible, to use this preparation.

Whenever it is impossible to obtain a reliable preparation of Fehling's Solution, a fairly good substitute for qualitative work may be made as follows: 1 drachm of Sulphate of Copper, 2 drachms of Neutral Tartrate of Potash, 3 ounces of Liquor Potassae. Mix. Keep this closely corked and in a cool, dark place. It is to be used as detailed above for Fehling's Solution.

yellow or brick-red precipitate forms, it has probably been kept too long or has been improperly prepared. If, however, the mixture retains its transparent, deep blue color, it may be relied upon, and the test is proceeded with. To the hot mixture the urine is added, drop by drop, and the heat is occasionally applied, until a volume of urine has been added equal to the volume of the mixture. If sugar is present in quantity, the first few drops will usually cause a yellow opacity to appear, which spreads through the mixture, changing slowly to red as it settles to the bottom of the test-tube. A small quantity of sugar causes this reaction to take place more slowly. If no reaction takes place, the urine, clinically speaking, is free from sugar.

ERRORS. *a.* The urine must be fresh. A small quantity of sugar may fail to cause the reaction in an ammoniacal urine.

b. Albumen interferes with the reaction and must be removed before the test is made. This may be done by heating the urine, previously rendered only faintly acid, and filtering it. Care must be taken not to boil the specimen too long.

c. The changes produced by the earthy phosphates must not be confounded with the sugar reaction. The former produce a flocculent precipitation in the midst of a transparent, greenish amber fluid.

The Bismuth Tests are based upon the fact that the action of sugar upon the Bismuth salts is the same as upon the Salts of Copper. They have advantage over the Copper tests of being less sensitive to the decomposing power of other organic compounds.

The Test, which is ordinarily employed (Boettger's), is conducted as follows : the urine is mixed with an equal volume of Liquor Potassae or Sodaæ, a small quantity of Bismuth Subnitrate is added, and the mixture is boiled for a short time. If sugar is present, insoluble black Oxide of Bismuth is formed and deposited on the sides of the test-tube ; or if the quantity of sugar is small, the white Bismuth powder becomes tinged with gray.

ERRORS. Only a very small quantity of Bismuth should be used, as an excess of Bismuth, if the amount of sugar is small, may conceal the reaction.

If Albumen is present in the urine, a re-

action, due to the formation of the black Sulphide of Bismuth, may take place, which resembles that produced by sugar and may be mistaken for it; the Albumen should, therefore, be removed from the urine before the test is made.

Another Test for Sugar. Mix equal parts of urine and Fehling's Solution in a test-tube and let them stand in a moderately cool place for twelve hours. If there is any orange-red deposit, sugar is present. This test is useful mainly as corroborative of others.

To insure greater certainty in all doubtful cases, *both* the Bismuth and Copper tests should be employed.

Microscopical Examination. The value of such examination of course depends upon the knowledge and skill of the microscopist, and as only those thoroughly familiar with such examinations will, naturally, be called upon to make them, there is no necessity for any instructions as to the paraphernalia or technique required.

In Conclusion. We submit these suggestions for the consideration of the medical gentlemen into whose hands as its Medical Exam-

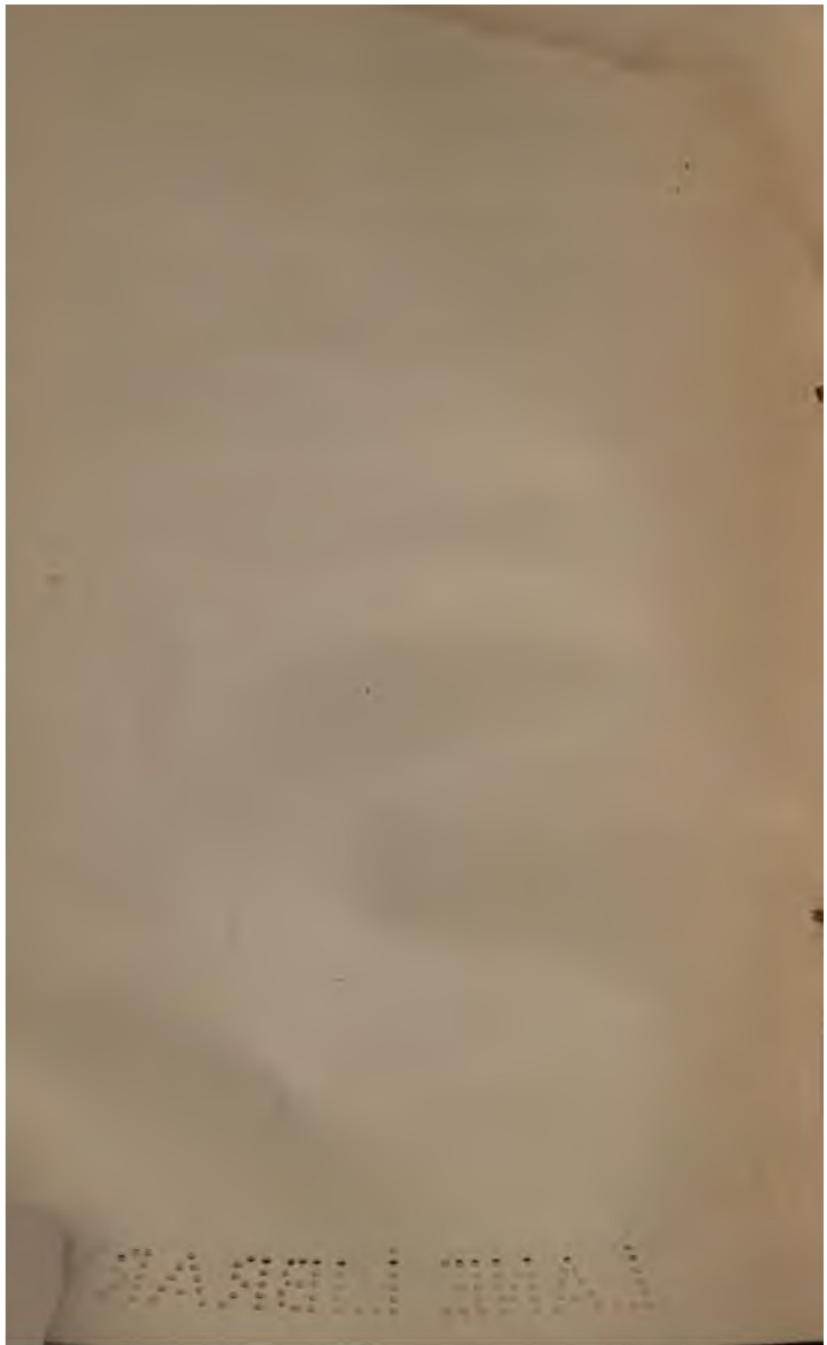
ers and Confidential Advisers, the Company entrusts much responsibility, with the hope and belief that they will sustain in the future, as they have in the past, the honor of their profession, and ably protect the interests of the NEW-YORK LIFE INSURANCE COMPANY.

A. HUNTINGTON, M. D.,
Medical Director.

New York, Oct., 1897.











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